DOCUMENT RESUME

ED 146 383 CE 013 275

AUTHOR Banta, Trudy
TITLE Tennessee Career Education Needs Assessment.
INSTITUTION Tennessee Univ., Knoxville. Coll. of Education.
SPONS AGENCY Tennessee State Dept. of Education, Nashville.
PUB DATE Apr 77
NOTE 88p.

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS Administrator Attitudes; *Career Education; Educational Assessment; *Educational Needs; Educational Research; *Program Effectiveness; Program Evaluation; *Program Improvement; Public Opinion; *State Programs; State Surveys; Teacher Attitudes
IDENTIFIERS *Tennessee

ABSTRACT

A statewide career education needs assessment was done in Tennessee by surveying all superintendents and samples of principals, teachers, and community leaders. State employment security data and Career Maturity Inventory (CMI) scores for a sample of the state's ninth graders were secondary information sources. The primary conclusion was that the idea of utilizing career education as a motivational device to increase the relevance of academic content for students and to prepare youth for a smoother transition from school to work has broad appeal throughout the state. Survey respondents indicated that the chief obstacle to the implementation of career education programs was the lack of funds, which resulted in limited staff training in career education and lack of curriculum materials. The recommendations made by the respondents focused on provision of state funding for (1) dissemination of information about existing career education materials, and purchase by school systems of some of these materials; and (2) personnel to spend time in the field organizing staff training in the use of career education materials and techniques. (Author/EM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED146383

TENNESSEE CAREER EDUCATION NEEDS ASSESSMENT

Dr. Sam H. Ingram, Commissioner

Tennessee State Department of Education

Cordell Hull Building

Nashville, Tennessee

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Trudy W. Banta

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Study Conducted by

Dr. Trudy Banta

The University of Tennessee
and
The State Testing and Evaluation Center

Knoxville, Tennessee

April 1977

NE 013 276

TABLE OF CONTENTS

SECTION		PAGE
SOURCES OF DATA		1
I.	MANPOWER PLANNING INFORMATION	2
II.	BACKGROUND OF CAREER EDUCATION IN TENNESSEE	5
III.	SURVEY OF SUPERINTENDENTS, PRINCIPALS, TEACHERS AND COMMUNITY LEADERS	7
	Planning the Needs Assessment Survey	7
	Superintendents' Views	10
	Survey Procedure	10
	Career Education Objectives for Students: Superintendents' Views	10
	Career Education Needs: Superintendents' Views	12
	School System Policies and Procedures	17
	Differences Between Views of County and City System Superintendents	20
	Principals' Views	22
	Sampling Procedure	22
	Career Educatior Objectives for Students: Principals' Views	23
	Career Education Needs: Principals' Views	25
	Career Education Instructional Techniques	31
	Staff Development and Training	32
	Differences Between Views of Elementary and Secondary Principals	33

SECTION PAGE

Teachers' Views 35

Sampling Procedure 35

Career Education Concepts 36

Career Education Objectives for Students: Teachers' Views 38

Career Education Needs: Teachers' Views 41

Views of Elementary and Secondary Teachers 47

Community Leaders' Views 49

Sampling Procedure 49

Career Education Concepts 50

Career Education Objectives for Students: Community Leaders' Views 52

Career Education Needs: Community Leaders' Views 54

IV. CAREER MATURITY INVENTORY FOR NINTH GRADERS 61

SUMMARY OF NEEDS ASSESSMENT SURVEY DATA 63

CONCLUSIONS AND RECOMMENDATIONS 77

REFERENCES 81

LIST OF TABLES

TABLE		PAGE
1.1	Career Education Objectives: Superintendents' Views of Desirable Emphasis and Extent of Achievement	11
1.2	Problems Contributing to Difficulty of Implementing Career Education: Superintendents' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings	14
1.3	Priorities for Career Education: Superintendents' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Ratings	16
2.1	Career Education Objectives: Principals' Views of Desirable Emphasis and Extent of Achievement	24
2.2	Problems Contributing to Difficulty of Implementing Career Education: Principals' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings	27
2.3	Priorities for Career Education: Principals' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Ratings	29
3.1	Teachers' Favorable Views of Key Career Education Concepts	37
3.2	Career Education Objectives: Teachers' Views of Desirable Emphasis and Extent of Achievement	40
3.3	Problems Contributing to Difficulty of Implementing Career Education: Teachers' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings . . .	43
3.4	Priorities for Career Education: Teachers' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Rating	46
4.1	Community Leaders' Favorable Views of Key Career Education Concepts	51
4.2	Career Education Objectives: Community Leaders' Views of Desirable Emphasis and Extent of Achievement	53

TABLE PAGE

4.3 Problems Contributing to Difficulty of Implementing Career Education: Community Leaders' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings . . . 56

4.4 Priorities for Career Education: Community Leaders' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Rating 58

5.1 Percentages of Superintendents, Principals, Teachers and Community Leaders Indicating that Career Education Objectives for Students (Based on Career Maturity Inventory Measures) Deserve 'Some' or 'Much' Emphasis in the School Curriculum 66

5.2 Problems Contributing to Difficulty of Implementing Career Education: Rank Order Based on Mean Difficulty Rating for Superintendents, Principals, Teachers and Community Leaders 69

5.3 Priorities for Career Education: Rank Order Based on Mean Priority Rating for Superintendents, Principals, Teachers and Community Leaders 72

TENNESSEE CAREER EDUCATION NEEDS ASSESSMENT

SOURCES OF DATA

Data for the Tennessee Career Education Needs Assessment were drawn from four principal sources:

1) manpower planning information from the Tennessee Department of Employment Security's Annual Planning Report for 1977 and related publications;
2) background information on the development of career education in Tennessee from various published and unpublished reports of the Tennessee State Department of Education;
3) a survey conducted in February - March 1977 which involved mailing an instrument designed to gather information about perceived career education needs to all the State's school superintendents, and to samples of principals, teachers, and community leaders throughout the State; and
4) scores on the Career Maturity Inventory which was administered to a sample of ninth grade students during the 1975-76 State Educational Assessment of Schools in Tennessee.

I. MANPOWER PLANNING INFORMATION

A career education program which is designed to assist students to make realistic plans for future employment must be based on the best information available about manpower needs and employment trends in the state in which the students are likely to be employed. In June 1976 the Tennessee Department of Employment Security's Research and Statistics Section produced the Annual Planning Report for the State of Tennessee - Planning Year 1977. Excerpts from this and other Employment Security reports have been compiled to provide the manpower planning information base for the Tennessee Career Education Needs Assessment.

The Tennessee Department of Employment Security estimates that the population of Tennessee in 1977 is approximately 4,240,000, with an annual growth rate of just over 8 percent (Annual Planning Report (APR), 1976, pp. 8-9). The 1970 Census showed that 83.7 percent of the State's population was white and 16.3 percent non-white (Tennessee Department of Employment Security. Tennessee Data for Affirmative Action Plans, 1976, p. 4). Blacks constituted the only significant minority group.

Tennessee's largest industry is manufacturing. Approximately 30 percent of the State's work force is employed in the manufacture of durable and non-durable goods (APR, p. 25). About 27 percent of all manufacturing employment is in two industrial classifications, Apparel and Textile Products and Chemicals and Allied Products, and this percentage should continue to grow through 1980.

Almost one-fourth of Tennessee's jobs are in the industrial division called Services, which includes Hotels and Lodging Places; Personal Services, such as Laundry and Cleaning; Automobile Repair; Motion Pictures and Entertainment; Medical Services; Legal Services; Educational Services; and Miscellaneous Business Services (APR, pp. 25-6). Growth in Services has been accompanied by increases in two major occupational categories: Service Workers and Clerical Workers. By 1980 Tennessee's Department of Employment Security estimates that the category Clerical Workers will have surpassed in size every other occupational group in the State except Operatives (APR, p. 26).

Retail and wholesale trade accounts for almost 20 percent of Tennessee's total employment.

Slightly more than five percent of Tennessee's work force is employed in each of the two industrial divisions, Construction, and Transportation and Other Public Utilities. Three to five percent of the State's employment is in Finance, Insurance, and Real Estate; approximately the same percentage is in Government or Public Administration (APR, p. 28). Less than five percent of the State's jobs are in Agriculture or in Mining, and the percentage in both categories is declining.

The following occupational categories presently provide the largest number of job openings in Tennessee each year: Clerical Workers; Operatives; Service Workers; Professional, Technical and Kindred; Craftsmen, Foremen and Kindred; Managers, Officials, and Proprietors; and Sales Workers (APR, p. 30).

The projected unemployment rate for Tennessee in 1977 is 7.3, down from a high of 8.3 in 1975 (APR, p. 31). The State's economic outlook is good.

An abundant labor supply, a good transportation system, and dependable energy supplies should continue to attract new industry to the area.

Tennessee's labor force contains more workers aged 35 and over, but the actual number of unemployed projected for 1977 is 1.8 times higher for workers under 35 (unemployment rate of 10 percent) than for those 35 and over (unemployment rate of 4.8 percent) (APR, p. 41).

Projections based on census data indicate that in 1977 approximately 21.7 percent of Tennessee's population will be classified as economically disadvantaged (APR, p. 43). This classification is based on an index which uses a range of income levels adjusted by such factors as family size, sex of family head, number of children under the age of 18, and farm or nonfarm residence. The typical disadvantaged Tennessean is a young white male with less than a twelfth grade education who lives in an urban area. But high percentages of disadvantaged applicants at Employment Service offices in the State are female and/or black, and live in rural areas. Almost seven percent of the economically disadvantaged Employment Service applicants have more than a twelfth grade education (APR, p. 44).

Barriers to the employment of Tennesseans, according to the Employment Service, include lack of education and job training, obsolete skills, locale and transportation problems, and lack of information about employment opportunities (APR, p. 51). An estimated decrease in the number of school dropouts from 96,000 in FY 1976 to 80,000 in FY 1977 may indicate that lack of education as a barrier to employment is declining in importance, at least temporarily (p. 51).

II. BACKGROUND OF CAREER EDUCATION IN TENNESSEE

Career education as viewed by most of the leading spokespersons in the field is not an additional body of subject matter which must be added to the existing curriculum of a school, but rather a vehicle--a set of teaching strategies--through which curriculum goals can be more effectively achieved. In keeping with this conceptualization, those responsible for providing leadership for career education at the State level in Tennessee have not advocated that a body of "career education goals" be added to existing educational goals. Instead they have pointed to the fact that the statement of "Goals of Education" set out by the State Board of Education in its 1976-77 Rules, Regulations, and Minimum Standards includes several goals which incorporate career education concepts, e.g., "Every person should (1) have sufficient information to realize his/her life goals, (2) acquire career information and economic competence, and (3) be aware of the increasing interdependence among people and nations of the world (pp. 3-7)."

In December 1972 a Statewide Governor's Conference on career education was planned and coordinated by vocational education staff in the State Department of Education to introduce the concept of career education in Tennessee. Presentations were made by the Governor, the State Commissioner of Education, and Dr. Kenneth Hoyt. The conference was attended by approximately 500 persons representing business, industry and education (Tennessee State Department of Education, 1975, p. 1).

By 1974 several model career education projects had been initiated with funds from such sources as the Appalachian Regional Commission, EPDA, ESEA Titles I and II, NDEA Title III and the Tennessee Valley Authority. The

projects were located in the Clay, Graene, Grundy, Hamilton and Knox county school systems, and in the Covington, Greeneville, Maryville, Memphis, Oak Ridge and Tullahoma city systems. Some of these projects, most notably those in Memphis and Greeneville, were continued with local funds, but others, such as the two in Knox County, were discontinued when the external funds were terminated.

In February 1974 the Tennessee State Board of Education officially adopted a set of procedures for implementing career exploratory activities in Grades 7 and 8. All schools in the State were encouraged to develop plans for integrating career exploration activities into all subject matter areas at these grade levels, and to supplement these efforts with strong guidance programs (1975, p. 2).

During the 1975-76 school year a State Director of Career Education was appointed, with assistance to be provided by nine Career Education Specialists--one located in each of the State Department of Education's development district field offices. To facilitate communication about career education developments within the State, a newsletter was developed and distributed by the State Department. Nine school systems were selected to receive USOE mini-grants of $10,000 each to develop pilot career education programs (Ingram, 1976, p. 4). The Director of Career Education provided an in-service orientation to career education for 155 State Department of Education personnel. Some of these individuals in turn provided in-service training in career education philosophy, methods, programs and evaluation for 44 selected local education leaders, and for 192 principals, teachers, counselors and librarians in the nine school systems that were awarded mini-grants (Hooker, 1976, p. 1).

III. SURVEY OF SUPERINTENDENTS, PRINCIPALS, TEACHERS AND COMMUNITY LEADERS

Planning the Needs Assessment Survey

In the proposal entitled "Career Education Planning in Tennessee" which was submitted to USOE by the State Department of Education February 18, 1976 the paragraph headed "Assessment of Career Education Needs" specified that

> Survey techniques will be used in order to facilitate planning decisions through identification of career education needs. Data will be collected from such sources as students, school personnel, business/industry/labor personnel and the general community. The kinds of information to be collected in the assessment will represent a range of categories necessary to identify discrepancies between a career education goal and its level of performance . . . Information regarding the training of school personnel will also be collected (p. 6).

Due to constraints imposed by the time and the financing available for the career education needs assessment, the planners (which included the Director of Career Education and personnel from the State Testing and Evaluation Center in Knoxville) made an early decision not to sample the State's student population especially for the needs assessment, but to utilize existing data from the Career Maturity Inventory which was administered to a sample of ninth graders during the 1975-76 State Educational Assessment of Schools in Tennessee. These data will be summarized in a section immediately following presentation of the results of the survey of superintendents, principals, teachers and community leaders.

Four sets of survey instruments were designed, and mailed in early February 1977 to all Tennessee's school superintendents, and to samples of principals, teachers and community leaders throughout the State. The sampling

procedures utilized with respect to each of the latter three populations are detailed in the sub-sections pertaining to these groups which follow the present discussion.

The content of the survey instruments was designed to obtain four kinds of information:

1) perceptions regarding key career education concepts, in order to determine (a) how closely the thinking of Tennesseans paralleled the thinking of leading career education proponents about these concepts, and thus (b) how positively, or negatively, Tennesseans viewed career education;
2) the amount of emphasis which the various groups of Tennesseans thought should be given to a series of important career education goals or objectives for students, and the extent to which the respondents believed the goals or objectives were being achieved in their school systems;
3) perceived obstacles to implementation of career education in Tennessee, which provide a basis for identifying actions needed to facilitate such implementation; and
4) current status of career education implementation in Tennessee, including
   (a) the number and proportion of schools and school systems having on-going programs,
   (b) relevant school system policies and procedures,
   (c) types of instructional techniques, methods and activities being utilized in the schools, and

d) amounts and kinds of staff development and training activities being conducted.

Superintendents and principals were asked to provide most of the information included in Content Area #4 above, and all four survey groups were asked to answer questions related to Content Areas #2 and #3. In order to shorten the superintendents' and principals' forms to a more reasonable length, the items in Content Area #1 were omitted from these forms and placed only on the instruments designed for teachers and community leaders.

The writings of Kenneth Hoyt, Rupert Evans, Sidney Marland, Keith Goldhammer, and others (Hoyt, 1975; Hoyt, Evans, et al, 1972; Goldhammer and Taylor, 1972; American Vocational Association, 1973) were studied in order to compile the list of key career education concepts for Content Area #1. Since the Career Maturity Inventory had been identified as the source for needs assessment data from students, and since the CMI was one of the instruments receiving the strongest recommendation in the 1975 Career Education Instrument Review conducted for USOE by Development Associates, Inc., the broad goals for students on which the sub-sections of the CMI are based (Crites, 1973) were utilized for Content Area #2. Using additional career education resources, a set of more specific behavioral objectives for students related to each of the broad goals was developed for the survey instrument designed to obtain teachers' responses.

Input for items pertaining to Content Areas #3 and #4--career education needs and implementation procedures--was obtained from a variety of sources, principally the "Survey of Career Education in the Public Schools of the United States-1975" conducted for USOE by American Institutes for Research, and career education needs assessments conducted in the states of Colorado and Michigan. Other sources utilized to a lesser degree were the New Mexico and Texas state career education needs assessments, and Delaware's publication Career Development Data Gathering Instrumentation (1973).

Superintendents' Views

Survey Procedure

In early February 1977, a Tennessee Career Education Needs Assessment survey instrument was mailed to the superintendents of each of the State's 147 school systems. If individual schools within a system had been selected to furnish input for the principal and teacher survey samples, the superintendent's cover letter identified these schools so that the superintendent could encourage the principals to participate in the needs assessment. A reminder was sent in mid-February to superintendents who had not yet responded, and this procedure yielded a return of 135 completed questionnaires, a response of 92 percent.

Career Education Objectives for Students: Superintendents' Views

Superintendents were asked to respond in two ways to a set of six broad career education objectives which form the bases of the Career Maturity Inventory for secondary students. First, they were asked how much emphasis they felt each student objective should be given in the curricula of their school systems; 'little', 'some', or 'much'. Then they were asked for an opinion concerning the extent to which each objective was being achieved in their systems: 'not at all', 'to some extent, but not sufficiently', or 'completely'.

Percentages reported in Table I.1 indicate that 89-100 percent of the superintendents thought each of the student objectives was worthy of at least 'some' emphasis in the curriculum, and 52-87 percent felt the objectives deserved 'much' emphasis. Regarding extent of achievement, however, no more than 14 percent (the average was 9 percent) of the superintendents thought any objective was being achieved 'completely'. Most of the responses concerning the extent to which the career education objectives were being achieved were in the 'to some extent' category.

The last column of Table I.I consists of a set of ratios that illustrates the discrepancy between the amount of emphasis which superintendents believed the career education objectives deserved, and the extent to which they felt those objectives were actually being achieved. The ratio of the mean rating for 'extent of achievement' to the mean rating for 'emphasis' of any given career education objective would equal 1 if the objective were being achieved to a degree commensurate with the emphasis superintendents felt it should have. But, as the table shows, the ratios are less than 1. This indicates that the superintendents believed the objectives deserved more emphasis than they were receiving in the curricula of their school systems.

Table I.I Career Education Objectives: Superintendents' Views of Desirable Emphasis and Extent of Achievement.

Objective for Students	Desirable Emphasis		Extent of Achievement of Objective		Ratio of Mean Extent of Achievement Rating to Mean Desirable Emphasis Rating
	Total % of 'Some' & 'Much' Responses	(% of 'Much' Responses)	Total % of 'Not at all' & 'To Some Extent' Responses	(% of 'To Some Extent' Responses)	
1. To know oneself (interests, abilities, etc.)	98	(76)	94	(92)	2.04/2.73 = .75
2. To develop positive attitudes toward work	100	(87)	89	(88)	2.09/2.87 = .73
3. To acquire occupational information	96	(74)	86	(83)	2.11/2.70 = .78
4. To develop career decision-making skills	94	(64)	91	(82)	2.00/2.58 = .78
5. To develop plans for achieving career goals	95	(69)	92	(87)	2.03/2.64 = .77
6. To develop career problem-solving skills	89	(52)	94	(79)	1.90/2.36 = .80

The superintendents' responses recorded in Table I.I represent a strong endorsement of career education objectives for students as stated in the Tennessee Career Education Needs Assessment. While all six objectives were considered worthy of 'much' emphasis by majorities of the superintendents, the three objectives considered most important were those of assisting students to (1) develop positive attitudes toward work, (2) know themselves, and (3) acquire occupational information. Superintendents seemed least concerned about helping students develop career problem-solving skills, (i.e., to locate a job in one's field, to apply for employment, to use work experiences to evaluate occupations, etc.), but even in this case 89 percent felt the objective should be given at least 'some' emphasis.

The figures in Table I.I indicate that Tennessee's school superintendents were not satisfied with the extent to which the career education objectives they strongly endorsed were being implemented in the school: (1) 86-94 percent said 'not at all' or 'to some extent' when asked to what extent the objectives were being achieved in their school systems, and (2) the 'discrepancy ratios' in the last column indicate that just over three-fourths of the emphasis superintendents felt ought to be given to the career education objectives was actually being achieved.

Career Education Needs: Superintendents' Views

Responses to six statements about career education indicate that those superintendents who participated in the Tennessee Career Education Needs Assessment held favorable attitudes toward the concept.

- Just three (2%) of the superintendents said career education "is not important enough for our schools to consider."
- Only one superintendent thought career education "should not be promoted because it interferes with the basic objectives of the curriculum in our schools."
- Eleven percent said career education "should be used, or taught, only by

those teachers who are really "sold" on it and can work it in without extra cost to the school system."

. Twenty-three percent of the superintendents thought career education "should be handled primarily by school counselors."

. Thirteen percent said career education "should be utilized in our schools only if federal funds can be obtained to pay for any extra expenses which may result."

. The majority of superintendents (62 percent) endorsed career education by responding to the most positive statement: career education "is an idea whose time has come; it should be utilized in our schools even if it means raising taxes to pay for it."

Apparently most superintendents viewed career education as a concept to be integrated into the total school curriculum rather than handled principally by guidance counselors or just by those teachers particularly interested in it. Superintendents were asked to indicate how extensively ('greatly', 'somewhat', or 'no difficulty') certain problems had contributed to the overall difficulty of implementing career education programs in their school systems. Table I.2 provides a rank ordering of these problems based on mean difficulty rating assigned by superintendents, and the percentages of 'greatly' and 'somewhat' responses for each item.

Table 1.2 Problems Contributing to Difficulty of Implementing Career Education: Superintendents' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings

Problem	Rank Order Based on Mean Difficulty Rating	Total % of 'Somewhat' and 'Greatly' Responses	(% of 'Greatly' Responses)
Lack of funds to train staff	1	93	(66)
Lack of funds to purchase materials	2	91	(66)
Lack of funds for transportation of students to work sites	3	90	(59)
Lack of curriculum materials that meet identified needs	4	95	(53)
Lack of funds for making curricular changes	5	92	(55)
Lack of curriculum materials that meet staff development needs	6	93	(47)
Lack of trained staff	7	90	(34)
Lack of competent person(s) to train staff	8	83	(36)
Confusion between career education and vocational education	9	80	(16)
Lack of interest at the State Department of Education	10	56	(12)
Resistance of staff to career education	11	59	(07)
Lack of interest in the business/labor/industry community	12	42	(08)
Opposition from parents	13	29	(03)

Superintendents clearly viewed 'lack of funds' as the most significant obstacle to implementation of career education in their systems -- the problems which superintendents ranked 1, 2, 3, and 5 in order of difficulty pertained to insufficiency of funds. Two other critical problems identified by superintendents were lack of staff training and of curriculum materials -- the problems which they ranked 1, 2, 4, 6, 7, and 8 were related to these factors. Of least concern to most superintendents who responded to the items in this section was lack of interest, or opposition to career education, on the part of parents, the business/labor/industry community, school staff, and the State Department of Education. Eighty percent of the superintendents viewed 'confusion between career education and vocational education' as at least 'somewhat' of a problem, but only 16 percent thought this factor contributed 'greatly' to the difficulty of implementing career education programs.

Only five superintendents wrote in additional problems not listed on the questionnaire. Two expressed concern about finding time to work career education into an already crowded curriculum. One mentioned insufficient State Department funding; and two were troubled by insufficient staffing; one wanted a full-time counselor to assist with career education, the other felt a full-time career education supervisor or coordinator was needed.

Table I.3 presents the ratings which superintendents gave to various actions which might be undertaken by the State Department of Education to facilitate implementation of career education programs in their school systems. Each action was given a 'high', 'medium', 'low', or 'should not be done' priority by the superintendents, then a mean rating was calculated. Table I.3 contains a listing of the actions in order based on mean priority ratings, and includes the percent of 'high' and 'medium' ratings which the superintendents assigned to each.

Table I.3 Priorities for Career Education: Superintendents' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Ratings

Career Education Action	Rank Order Based on Mean Priority Rating	Total % of 'High' and 'Medium' Responses	(Percentage of 'High' Responses)
Support in-service staff development activities	1	95	(69)
Provide funds for purchase of career education materials by school system	2	93	(73)
Support innovations in pre-service training	3	91	(58)
Facilitate dissemination of information about existing career education materials	4	91	(57)
Support development and validation of career education curriculum materials	5	94	(46)
Support research to improve career guidance procedures	6	84	(42)
Support research to predict future job markets	7	83	(40)
Provide incentives for participation by the private sector	8	82	(36)
Support a computerized career information network	9	61	(23)

Just as superintendents identified lack of staff training and lack of curriculum materials as the chief obstacles to implementation of career education programs, they suggested training of staff (see priorities #1 and #3 in Table I.3) and provision of curriculum materials (see priorities ranked 2, 4, and 5) as the most important actions which might be undertaken by the State Department of Education to further the development of career education in Tennessee. Possible actions which were assigned intermediate priorities by the superintendents re-

sponding to items in this section included research to improve career guidance procedures and to predict future job markets, and provision of incentives for participation in career education programs by the private sector. Support of a computerized career information network was given lowest priority by the superintendents. Ten percent of the respondents said the computerized network 'should not be done', while the average 'should not be done' rating for the other eight items was just two percent.

Seven superintendents supplied additional career education needs not listed on the questionnaire. Three of the written remarks concerned additional funding for career education (e.g., "make it part of the State's Minimum Foundation Program" and "provide full funding of the Comprehensive Vocational Education Act"), and three were related to staffing: two superintendents felt their systems should have full-time career education coordinators and one wanted at least a half-time counselor for every school regardless of size. One superintendent suggested that the State improve the coordination between career education and vocational education; one wanted to "promote career education newsletters".

School System Policies and Procedures

Forty-seven percent of the superintendents responding to the needs assessment survey said there had been attempts to implement career education programs in their school systems. However, only eight superintendents (5 percent of the respondents) reported that their boards of education had 'adopted a formal written policy with regard to career education in the school system'. Two percent of the superintendents said their boards planned to adopt such policies during the 1976-77 school year, and 53 percent were uncertain about this possibility.

Only 20 percent of the superintendents said funds had been budgeted for career education in their school systems during 1975-76 and 1976-77. Of those who answered this question negatively, only two percent said such funds had been requested. The superintendents whose systemwide budgets included allocations for career education were asked to indicate the source(s) of their funds for career education. Most were utilizing federal funds, some were using local funds, a few used State funds. Only twelve superintendents provided estimates of the amounts of funds budgeted for career education in their systems. Four systems reported funding from combinations of sources, but altogether nine of the systems for which estimates were provided were utilizing local funds, seven were using federal funds, and three had received State funds. The budget figure for local funding ranged from $500/year for a small city system to $40,000/year for a large city system. Excluding the largest city systems, the average local contribution to career education was $6,000 annually. Median federal and State grants were $10,000 per year.

Twenty percent of the superintendents reported that formal needs assessments had been conducted by their school systems as part of career education planning activities. Eight percent said they planned to conduct such a needs assessment, 47 percent were uncertain that this activity would take place.

Only 17 percent of the superintendents reported that one or more individuals had been employed specifically for work in career education in their systems during 1976-77. The actual number of individuals thus employed was reported by five city systems and five county systems. Written comments indicated that at least some of the persons listed as being employed 'specifically for work

in career education' were actually vocational education teachers or supervisors, so the responsibilities of all the individuals listed are unclear. At any rate, the number of full-time individuals reportedly employed specifically for work in career education during 1976-77 ranged from one to seven, with the average standing at three. Four systems used part-time employees in addition to their full-time staff: three systems employed one part-time person, one system utilized two part-time employees. According to the superintendents, most of these persons were trained as guidance counselors or school administrators, a few had formerly been vocational education or non-vocational teachers.

Twenty-three percent of the superintendents said that formal evaluations of career education activities had been carried out in their systems. The evaluations could have been carried out in previous years, however, because no time period was specified in connection with this item. Five percent of the superintendents said such evaluations were planned, 37 percent were uncertain of this. Those who had conducted formal evaluations used standardized tests of career development, teacher ratings, expert judgments, and attitudes of persons in the community, in that order, more frequently than other types of evaluative data. Less commonly used measures included standardized tests of basic skills and outside evaluators or evaluation teams.

Just fifteen percent of the superintendents reported that their school systems had formally constituted advisory committees for career education, and some of these added the remark that the committees were vocational education advisory committees. Five percent said their systems planned to form such committees, 38 percent were uncertain that this would happen. In addition to school personnel, the types of individuals most frequently asked to serve on

advisory committees included business/labor/industry representatives, parents, and community service organization representatives, in that order. Local government representatives and students were utilized on only a few advisory committees.

Eighteen percent of the superintendents said staff development and training activities in career education were conducted by their systems in 1976-77. Only half of these respondents indicated that staff participants were compensated for engaging in such activities. Most frequently, participants were given released time, but in a few instances they were paid in addition to their regular salaries.

Differences Between Views of County and City System Superintendents

In response to the question "Has your school or school system attempted to implement a career education program?", 54 percent of the city system superintendents said 'yes' and 46 percent of the county system superintendents said 'yes'. During the past two school years funds were allocated specifically for career education by 36 percent of the city systems, but by only 15 percent of the county systems. The fact that a larger percentage of the city systems had made commitments, including financial resources, to career education probably contributed significantly to the principal differences between city and county which showed up in other responses.

While there was a significant correlation ($r_s = .84$, $p \leq .01$) between the order in which city and county superintendents ranked the problems contributing to difficulty in implementing career education, there was a difference in the intensity with which the problems were viewed. For the problems which

superintendents ranked from 1 to 7 in importance, 94 to 100 percent of the county superintendents felt the problems contributed 'somewhat' or 'greatly' to impeding career education implementation. Only 78 to 86 percent of the city superintendents rated the same seven problems similarly--an average difference of 15 percent less per item. Stated another way, while 14 to 22 percent of the city superintendents said the seven 'problems' were of 'no difficulty', 0 to 6 percent of the county superintendents said they were of 'no difficulty'. Even with respect to rank order (which, again, was not significantly different overall) the county superintendents ranked 'lack of funds to train staff', 'lack of funds to purchase materials', and 'lack of funds for making curricular changes' higher than did their counterparts in city systems.

Overall, there was a significant (Spearman rank order) correlation ($r_S = .73$, $p \leq .05$) between the ranks assigned to career education priorities by city and county superintendents. However, two differences on individual items might be pointed out. The first action which county superintendents felt ought to be taken was to 'provide funds for purchase of career education materials by school system'; this action was ranked fourth in importance by city superintendents. On the other hand, the item ranked first by city superintendents--and fourth by county superintendents was 'support development and validation of career education curriculum materials'. This difference may be an indication that more city systems had already purchased materials and were ready to go a step further and support development and validation of their own materials than was the case at the county level.

Four percent more city systems had conducted formal career education needs assessments than had county systems, and formal evaluations of career education activities had been carried out by eight percent more city systems.

Principals' Views

Sampling Procedure

Schools having fourth, ninth and twelfth grades which had previously been selected via a proportional stratified random sampling technique for Tennessee's State Educational Assessment of Schools provided the source of principal and teacher samples for the Career Education Needs Assessment. Prior to the State Educational Assessment, personnel at the State Testing and Evaluation Center in Knoxville had determined the number of Tennessee schools which should be sampled in order to satisfy certain precision and cost requirements. Then schools were categorized using (1) economic indicators (e.g., number of students whose family income was above or below the State median) and (2) size and type of community (e.g., small town, medium city, large city), and proportional random samples were selected from each category to obtain the desired sample size. This procedure yielded a total of 243 schools, 95 having a fourth grade (representing elementary schools), 52 having a ninth grade (representing junior high schools), and 96 having a twelfth grade (representing senior high schools). NOTE: The State Educational Assessment of Schools included a sample of schools having an eighth grade, but these were eliminated from the sample used for the Career Education Needs Assessment.

In early February 1977, a copy of the survey instrument prepared for the Career Education Needs Assessment was mailed to the principal at each of the 243 schools selected by the method just described. In mid-February a reminder notice was sent to superintendents asking them to encourage principals in their system to return their questionnaires. By the closing date of March 10 two hundred five, or 84 percent of the principals sampled, had returned usable survey instruments.

Career Education Objectives for Students: Principals' Views

Principals were asked to respond in two ways to six broad career education objectives for students. First, they were asked how much emphasis each of the objectives should be given in the curriculum of their school systems: 'little', 'some', or 'much'. Then they were asked to indicate the extent to which each objective was being achieved in their school systems: 'not at all', 'to some extent, but not sufficiently', or 'completely'.

The figures in Table 2.1 indicate that 92-99 percent of the principals thought each of the student objectives was worthy at least 'some' emphasis in the curriculum, and 54-87 percent thought the objectives should be given 'much' emphasis. On the other hand, no more than 20 percent (the average was 16 percent) of the principals felt any objective was being achieved 'completely'. Most of the responses related to extent of achievement were in the 'to some extent' category.

The last column of Table 2.1 contains a set of ratios which indicates the discrepancy between the amount of emphasis principals felt the career education objectives deserved, and the extent to which they believed those objectives were actually being achieved. The ratio of the mean rating for 'extent of achievement' to the mean rating for 'emphasis' of any given career education objective should equal 1 if the objective were being achieved to a degree commensurate with the emphasis principals felt it should have. But, as the table shows, the ratios are less than 1. This indicates that the principals believed the objectives deserved more emphasis than they were receiving in the curricula of their school systems.

Table 2.1 Career Education Objectives: Principals' Views of Desirable Emphasis and Extent of Achievement

Objective for Students	Desirable Emphasis		Extent of Achievement of Objective		Ratio of Mean Extent of Achievement Rating to Mean Desirable Emphasis Rating
	Total % of 'Some' & 'Much' Responses	(% of 'Much' Responses)	Total % of 'Not at all' and 'To some Extent' Responses	(% of 'To some Extent' Responses)	
1. To know oneself (interests, abilities, etc.)	99	(78)	85	(84)	2.14/2.77 = .77
2. To develop positive attitudes toward work	99	(87)	80	(78)	2.19/2.86 = .77
3. To acquire occupational information	98	(68)	81	(77)	2.15/2.67 = .80
4. To develop career decision-making skills	95	(60)	84	(75)	2.06/2.55 = .81
5. To develop plans for achieving career goals	97	(67)	82	(74)	2.10/2.64 = .80
6. To develop career problem-solving skills	92	(54)	90	(75)	1.95/2.45 = .80

A substantial majority of the Tennessee principals responding to the items related to student objectives expressed the opinion that those objectives should be given 'much' emphasis. However, the principals appeared to be most interested in assisting each student to (1) develop positive attitudes toward work, and (2) know himself or herself. The principals placed less importance on the objective of assisting each student to develop career problem-solving skills (i.e., to locate a job in one's field, to apply for employment, to use work experiences to evaluate

occupations, etc.), but even in this case a majority (54%) would give the objective 'much' emphasis and 92 percent at least 'some'.

Figures recorded in Table 2.1 indicate that the principals were not satisfied with the extent to which the career education objectives they strongly endorsed were being implemented in their schools: (1) 80-90 percent said 'not at all' or 'to some extent' when asked to what extent the objectives were being achieved, and (2) the 'discrepancy ratios' in the last column indicate that approximately 80 percent of the emphasis principals felt the career education objectives ought to have was actually being achieved.

Career Education Needs: Principals' Views

Responses to six statements about career education indicate that the sample of Tennessee school principals surveyed in the course of this needs assessment were strongly in favor of implementing career education in their schools.

- Only one principal said career education "is not important enough for our schools to consider."
- No principal thought career education "should not be promoted because it interferes with the basic objectives of the curriculum in our school."
- Just ten percent of the principals responding said career education "should be used, or taught, only by those teachers who are really "sold" on it and can work it in without any extra cost to the school system."
- Nineteen percent said career education "should be handled primarily by counselors."

- Seventeen percent said career education "should be utilized in our schools only if federal funds can be obtained to pay for any extra expenses which may result."
- But 71 percent of the principals surveyed said career education "is an idea whose time has come; it should be utilized in our schools even if it means raising taxes to pay for it."

In addition to revealing a strong endorsement of career education by the State's principals, these responses indicate that most principals viewed career education as a concept to be integrated into the curriculum of the school, not just handled by counselors or teachers who have a special interest in it.

Sixty-three percent of the principals responding to the survey said their 'school or school system' had attempted to implement a career education program. In a related question, however, only 20 percent of the principals said their school had 'a formal program for infusing career education into the total curriculum'. The history of career education in Tennessee indicates that many schools and school systems have initiated career education projects, usually with outside funding, but few have continued to support career education activities after the supplemental funds were depleted.

Principals were asked to indicate how extensively ('greatly', 'somewhat', or 'no difficulty') certain problems had contributed to the overall difficulty of implementing career education programs in their school systems. In Table 2.2 these problems are listed in rank order based on mean difficulty rating, with percentages of 'greatly' and 'somewhat' responses included for each item.

Table 2.2 Problems Contributing to Difficulty of Implementing Career Education: Principals' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings.

Problem	Rank Order Based on Mean Difficulty Rating	Total % of 'Somewhat' & 'Greatly' Responses	(% of 'Greatly' Responses)
Lack of funds to purchase materials	1	93	(66)
Lack of funds to train staff	2	94	(62)
Lack of funds for transportation of students to work sites	3	91	(57)
Lack of funds for making curricular changes	4	92	(55)
Lack of curriculum materials that meet staff development needs	5	92	(40)
Lack of curriculum materials that meet identified needs	6	93	(39)
Lack of competent person(s) to train staff	7	79	(32)
Lack of trained staff	8	83	(28)
Confusion between career education and vocational education	9	78	(14)
Lack of interest in the business/labor/industry community	10	54	(07)
Lack of interest at the State Dept. of Education	11	54	(06)
Resistance of staff to career education	12	48	(04)
Opposition from parents	13	33	(02)

As Table 2.2 illustrates clearly, principals considered 'lack of funds' to be the most serious obstacle to implementation of career education in Tennessee. The problems rated first, second, third, and fourth included the phrase 'lack of funds'. Lack of career education materials and staff training in career education techniques was brought out in the items ranked 1, 2, 5, 6, 7, and 8. Of least concern to the principals who responded to these items was lack of interest, or opposition to career education, on the part of parents, school staff, the State Department of Education, and the business/labor/industry sectors. Confusion between career and vocational education was seen by more than three-fourths of the principals responding as at least 'somewhat' of a problem, but only 14 percent thought it contributed 'greatly' to the difficulty of implementing career education programs.

Only four percent of the principals responding to the survey felt it necessary to add a response to the list of obstacles listed in the questionnaire. One principal said a significant problem for career education, as for special education, was that the State Legislature and State Department of Education advocated and planned programs, but failed to provide adequate funding for implementation. This failure contributed to other problems which were mentioned by several principals, such as lack of personnel--counselors and supervisors--to provide career education leadership, and lack of appropriate facilities in which to carry out certain phases of career education programs. Other difficulties mentioned by one principal each included 'lack of student interest', 'lack of emphasis at junior high level', and 'lack of business and factories in our town'.

Table 2.3 summarizes the responses of principals who rated the priority of certain actions which might be taken by the State Department of Education to

facilitate implementation of career education programs in their school systems. Each action was given a 'high', 'medium', 'low' or 'should not be done' priority by the principals, then a mean rating was calculated. Table 2.3 lists the actions in order based on mean ratings, and includes the percentages of 'high' and 'medium' ratings which were obtained.

Table 2.3 Priorities for Career Education: Principals' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Ratings.

Career Education Action	Rank Order Based on Mean Priority Rating	Total % of 'High' & 'Medium' Responses	(Percentage of 'High' Responses)
Provide funds for purchase of career education materials by school system	1	92	(70)
Support in-service staff development activities	2	95	(62)
Facilitate dissemination of information about existing career education materials	3	96	(55)
Support development and validation of career education curriculum materials	4	95	(55)
Support innovations in pre-service training	5	95	(52)
Support research to predict future job markets	6	85	(52)
Support research to improve career guidance procedures	7	88	(48)
Provide incentives for participation by the private sector	8	85	(43)
Support a computerized career information network	9	74	(34)

As was the case in the previous item related to problems, or obstacles to implementation of career education programs, the need for career education materials and staff training was clearly indicated by principals' ratings of career education priorities. The actions ranked 1, 2, 3, 4 and 5 in Table 2.3 pertain to materials or to training of staff. Lower priority (though still rated 'medium' to 'high' priority by 74 to 88 percent of the respondents) was given by the responding principals to research in the areas of future job markets and improved career guidance procedures, incentives for private sector participation, and a computerized career information network. Seven percent of the respondents gave the rating 'should not be done' to the computerized career information network; the average 'should not be done' rating for the other eight actions was less than one percent.

Just two percent of the principals wrote alternatives to the priorities for career education listed in the questionnaire. Three principals listed additional staff--counselors and supervisors--as priority needs. One said the staff positions should be provided for in the State's Minimum Foundation Program. One principal made a strong plea for personnel to provide placement services for students in senior high and area vocational schools. Another said "Allow the local system to develop a career education plan and then back it from the State . . . the local system knows its own situation better than someone in Nashville." Other priority actions which were added by one principal each included 'implement at junior high', and 'parent involvement'.

Career Education Instructional Techniques

Principals were given a list of twenty instructional techniques, methods or activities and asked which best described their school's current career education delivery system. Their responses indicated that approximately

- 70 percent used field trips or general guidance and counseling;
- 44 percent used career guidance activities or guest speakers from business/labor/industry;
- 36 percent used comprehensive vocational/technical training or group career counseling;
- 29 percent used career information centers or career education units, or gave credit for work experience;
- one-quarter used on-the-job training or cooperative training/paid work experience, or integrated job readiness skills into vocational education;
- 15 percent used simulated work experiences, work observation activities, unpaid work experience, career fairs, career education courses, or student placement services.

Twenty percent of the principals said their schools had formal programs 'for infusing career education into the total curriculum'. When asked "what percentage of your staff members are actually implementing this process in the classroom?" only ten principals responded. The percentages given ranged from 15 to 100, averaging 45.

Staff Development and Training

Of the 205 principals responding to the needs assessment survey, 32 (16 percent) indicated that they had conducted staff development and training activities in the area of career education for members of their faculties during 1976-77. The most often used times for such activities were 'before or after school hours' or 'on "institute" or "teacher work" days'. 'During school hours' and 'summer or other vacation' were less frequently used times, and 'weekends' were scarcely used at all.

In response to the question "What techniques and materials were used in these (staff development) activities?" the principal sample provided the following information (percentages approximate):

- 15 percent utilized visits to business/labor/industry or other community sites, attendance at professional meetings, or group sharing sessions among school staff;
- 10 percent used presentations by local school staff experts, published or locally developed staff development materials, or presentations by experts from institutions of higher education or from business/labor/industry;
- 7 percent used visits to other career education sites, summer sessions at colleges, or workshops sponsored by professional organizations; and
- 5 percent used work experience in fields outside education, or presentations by State career education experts.

Differences Between Views of Elementary and Secondary Principals

In response to the question "Does your school have a formal program for infusing career education into the total curriculum?" 12 percent of the principals of schools having a fourth grade (representing elementary schools in the needs assessment survey) said 'yes' while 30 percent of the principals of schools having a ninth or a twelfth grade (representing secondary schools) responded affirmatively. Whereas more than 20 percent of the secondary principals said staff development and training activities in career education had been conducted for their faculties within the past year, only eight percent of the elementary principals said 'yes'.

The fact that more career education activities were being carried out in secondary schools than in elementary schools probably helps explain other response differences between principals at these levels. For three of the career education objectives for students which were stated in the first section of the questionnaire (see Table 2.1), 10 to 20 percent more secondary principals believed the objectives were being achieved 'completely' in their schools.

Problems related to staff training in career education were seen as greater obstacles to career education implementation by elementary principals than by secondary principals. Five to fifteen percent more elementary principals rated 'lack of trained staff', 'lack of funds to train staff', and 'lack of competent person(s) to train staff' as at least 'somewhat' of a problem than did secondary principals.

Ten percent more elementary principals viewed 'confusion between career education and vocational education' as at least 'somewhat' of a problem; and 18 percent more elementary principals saw 'lack of interest at the State Department of Education' as a problem contributing 'somewhat' or 'greatly' to the

difficulty of implementing career education at the local level.

With regard to priority actions which ought to be undertaken to further career education, there was a significant correlation between the order in which elementary and secondary principals ranked the actions, but there were differences in intensity of feeling about the importance of the actions. On seven of nine items two to seven percent more elementary principals gave the actions 'high' or 'medium' priority ratings than did secondary principals. Again staff training was given more attention by the elementary principals: they gave their highest priority to 'support in-service staff development activities'. Secondary principals ranked the same item fourth.

Teachers' Views

Sampling Procedure

The Tennessee Career Education Needs Assessment made use of a sample (see "Sampling Procedure" in preceding section entitled "Principals' Views") of 243 schools which had been selected via a proportional stratified random sampling technique to represent the State's elementary, junior high, and senior high schools. The sample included 95 schools having a fourth grade, 52 having a ninth grade, and 96 having a twelfth grade.

The 1976-77 Directory of Public Schools (Tennessee State Department of Education) was used to determine the number of teachers employed in each of the 243 schools. Utilizing a formula developed by the National Education Association (1960), it was determined that a sample of 975 teachers (316 elementary, 313 junior high, and 346 senior high) was needed to adequately represent the total number of teachers in the sample schools. A listing of the teachers currently employed in the sample schools was obtained from the State Department of Education in Nashville, and a proportional random sample of teachers from each school was drawn.

When the principal's questionnaire was mailed to each of the 243 sample schools, the envelope addressed to the principal also contained (1) a list of the teachers chosen for the teacher sample from that school, and (2) a number of teacher questionnaires equal to the number of teachers to be sampled at the school. Each principal was asked to see that the teacher questionnaires were completed, then to return them with his/her own instrument in a postage-paid envelope which was provided.

A total of 844 teacher questionnaires (87 percent of the 975 teachers in the sample) was received from 214 schools (88 percent of the 243 schools in the sample).

Career Education Concepts

The career education works of Kenneth Hoyt, Rupert Evans, Sidney Marland, Keith Goldhammer and others were studied in an attempt to produce a set of key conceptualizations about career education. The set of eight statements which resulted was adapted for a Likert scale response format, and included in the teacher questionnaire for the needs assessment. This section of the questionnaire was designed to determine (1) how closely the thinking of Tennessee's teachers about career education paralleled the thinking of the leading proponents of the concept, and thus (2) how positively, or negatively, teachers in Tennessee viewed career education.

Table 3.1 presents a summary of teachers' favorable responses to the eight career education concepts. A 'favorable' response may consist of 'strongly agree' and 'agree' responses or of 'disagree' and 'strongly disagree' responses, with this determination being based, in every case, on the way the concept is viewed by leading proponents of career education.

Table 3.1 Teachers' Favorable Views of Key Career Education Concepts

Concept	Percentage of Favorable (Strongly Agree - Agree or Disagree - Strongly Disagree) Responses	Mean Response (Strongly Agree = 1 Strongly Disagree = 4)
1. Career Education sounds more like a job for counselors than for teachers.	81	3.05 (Disagree)
2. Work methods, materials and concepts can be utilized to relate the content of almost any school subject to the way that content can be used in the work world.	95	1.80 (Agree)
3. Awareness of careers and the world of work should begin in elementary school.	94	1.57 (Agree)
4. The student should become familiar with broad occupational clusters in Grades K-6, narrow his/her focus to two or three clusters for exploration in Grades 7-10, and choose between entering a specific occupation and obtaining post-secondary education by Grade 10.	65	2.30 (Agree)
5. Career Education is a synonym for vocational education.	78	2.97 (Disagree)
6. Career Education is for all students: college-bound and non-college bound.	94	1.59 (Agree)
7. Career Education may be viewed as a basis for organizing and presenting educational content.	89	2.02 (Agree)
8. Career Education is just one more specialized area which will interfere with the general education which ought to be taking place in schools today.	92	3.26 (Disagree)

Broadly viewed, the information presented in Table 3.1 indicates that approximately 86 percent (the average favorable response percentage for the eight items) of the Tennessee teachers responding to the needs assessment survey (1) shared the

perceptions of leading authorities in the field concerning key career education concepts, and (2) viewed career education, as conceptualized in these eight statements, positively. Based on the mean responses computed for each item, the teachers sampled held strongest views on items 3, 6, 8, and 2, in that order. Taken together, these responses indicate that the teachers believed (1) career awareness should begin in the elementary grades, (2) career education is for all students, and (3) career education is not just another specialty to be added to the overcrowded curriculum, but can be integrated into the existing curriculum as a technique to relate the content of almost any subject to the way that content can be used in the world of work.

Item 4 in Table 3.1 contains three ideas which taken together form a strong summary of the stages and sequencing of career education in grades K-12. Sufficient written comment was received from the teacher sample to indicate that generally the teachers agreed with the first two ideas, but disagreed with the third. That is, the teachers felt that career awareness activities should take place in grades K-6, and that students should engage in exploration of career clusters in grades 7-10; but they thought Grade 10 was too early to 'choose between entering a specific occupation and obtaining post-secondary education.'

Career Education Objectives for Students: Teachers' Views

Teachers included in the Tennessee Career Education Needs Assessment teacher sample were asked to respond to 21 student objectives grouped in six broad categories, indicating first how much emphasis each objective should be given in the curriculum of the teacher's school or school system: 'little', 'some' or 'much'; and second, the extent to which the objective was being achieved: 'not at all', 'to some extent, but not sufficiently', or 'completely'. Response percentages for items within each of the six categories were so uniform (for example, 92-98

percent of the teachers responding to items in this section believed each of the 21 objectives deserved 'some' to 'much' emphasis) that there seems to be little justification for reporting percentages for individual items. Therefore, Table 3.2 reports the average percentage reponses for the items within each of the six broad categories. A second justification for utilizing this reporting system is that superintendents and principals were asked to respond only to the six broad objectives stated in Table 3.2, so grouping the teacher items increases the ease of comparing superintendents', principals', and teachers' views regarding career education objectives for students. Of course the teachers' responses are not directly comparable to those of the other groups because the teachers did not respond to the broad items themselves but rather to sub-parts of those items, and the whole is not necessarily equal to the sum of its parts. Ultimately the reader must judge the validity of the cross-group comparisons.

Figures reported in Table 3.2 show that 93-97 percent of the teachers thought each of the broad student objectives was worthy of at least 'some' emphasis. On the other hand, no more than 20 percent (the average was 17 percent) of the teachers believed any objective was being achieved 'completely'. Most of the responses related to extent of achievement were in the 'to some extent' category.

The last column of Table 3.2 contains a series of ratios which indicates the discrepancy between the amount of <u>emphasis</u> teachers thought the career education objectives deserved, and the extent to which they believed these objectives were actually <u>being achieved</u>. The ratio of the mean rating for 'extent of achievement' to the mean rating for 'emphasis' of any given career education objective should equal 1 if the objective were being achieved to a degree commensurate with the emphasis teachers thought it should have. But as the table shows, the ratios are less than 1. This is an indication that the teachers believed the objectives deserved more emphasis than they were receiving in the curricula of their schools or school systems.

Table 3.2 Career Education Objectives: Teachers' Views of Desirable Emphasis and Extent of Achievement

Objective for Students	Desirable Emphasis		Extent of Achievement of Objective		Ratio of Mean Extent of Achievement Rating to Mean Desirable Emphasis Rating
	Total % of 'Some' & 'Much' Responses	(% of 'Much' Responses)	Total % of 'Not at All' and 'To some Extent' Responses	(% of 'To some Extent' Responses)	
1. To know oneself (interests, abilities, etc.)	97	(62)	85	(78)	2.08/2.59 = .80
2. To develop positive attitudes toward work	96	(67)	83	(75)	2.08/2.64 = .79
3. To acquire occupational information	95	(60)	84	(70)	2.02/2.55 = .79
4. To develop career decision-making skills	93	(48)	86	(62)	1.90/2.40 = .79
5. To develop plans for achieving career goals	95	(65)	80	(65)	2.06/2.60 = .79
6. To develop career problem-solving skills	95	(61)	80	(67)	2.06/2.55 = .81

The sample of Tennessee teachers gave all of the stated career education objectives for students a strong endorsement. However, the teachers seemed most interested in assisting each student to (1) develop positive attitudes toward work, (2) develop plans for achieving career goals, and (3) know themselves.

Figures recorded in Table 3.2 reveal that teachers were not satisfied with the extent to which the career education objectives they strongly endorsed were being implemented: (1) 80-86 percent said 'not at all' or 'to some extent' when asked to

what extent the objectives were being achieved, and (2) the 'discrepancy ratios' in the last column indicate that approximately 80 percent of the emphasis teachers felt the career education objectives should have was actually being achieved.

Career Education Needs: Teachers' Views

Responses to six statements about career education indicate that a substantial majority of the sample of Tennessee teachers participating in the needs assessment survey favor implementing career education in their schools.

- Only 14 (1 percent) of the 844 teachers responding said career education "is not important enough for our schools to consider."
- Just 7 teachers (less than 1 percent) said career education "should not be promoted because it interferes with the basic objectives of the curriculum in our schools."
- Nineteen percent of the teachers responding said career education "should be used, or taught, only by those teachers who are really "sold" on it and can work it in without any extra cost to the school system."
- Just 13 percent thought career education "should be handled primarily by school counselors."
- Twenty percent of the teachers said career education "should be utilized in our schools only if federal funds can be obtained to pay for any extra expenses which may result."
- But 60 percent said career education "is an idea whose time has come; it should be utilized in our schools even if it means raising taxes to pay for it."

In summary, the sample of Tennessee teachers expressed strong interest in seeing career education utilized in the schools, and not just by counselors and interested teachers, but (as indicated in previous responses) as an integral part of the total curriculum.

Fifty-five percent of the teachers responding said their school or school system had attempted to implement a career education program.

Teachers were presented a list of potential problems for career education efforts, and were asked to indicate how much ('greatly', 'somewhat', 'no difficulty') each had contributed to the overall difficulty of implementing career education programs in their school systems. In Table 3.3 these problems are listed in rank order based on mean difficulty rating, with percentages of 'greatly' and 'somewhat' responses included for each item.

Table 3.3 Problems Contributing to Difficulty of Implementing Career Education: Teachers' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings.

Problem	Rank Order Based on Mean Difficulty Rating	Total Percentage of 'Somewhat' & 'Greatly' Responses	(% of 'Greatly' Responses)
Lack of funds to purchase materials	1	95	(64)
Lack of funds to train staff	2	93	(60)
Lack of funds for making curricular changes	3	92	(54)
Lack of funds for transportation of students to work sites	4	89	(56)
Lack of curriculum materials that meet identified needs	5	92	(46)
Lack of curriculum materials that meet staff development needs	6	92	(43)
Lack of trained staff	7	85	(26)
Confusion between career education and vocational education	8	84	(19)
Lack of competent person(s) to train staff	9	74	(25)
Resistance of staff to career education	10	62	(12)
Lack of interest in the business/labor/ industry community	11	56	(12)
Lack of interest at the State Department of Education	12	55	(12)
Opposition from parents	13	37	(05)

Table 3.3 illustrates clearly that teachers considered 'lack of funds' to be the most serious obstacle to implementation of career education in their schools: the problems ranked 1, 2, 3 and 4 contained the phrase 'lack of funds'. Following the shortage of funds, teachers considered lack of curriculum materials and lack of resources for staff training to be important problems: the problems ranked 1, 2, 5, 6, 7 and 9 dealt with these issues. Confusion between career education and vocational education was seen as at least 'somewhat' of a problem by 84 percent of the teachers who responded to the items in this section of the questionnaire. The teacher sample apparently saw much less cause for concern about the effect on career education programming of lack of interest in, or opposition to, career education by parents, the State Department of Education, the business/labor/industry community, and the school staff.

Less than eight percent of the teachers responding to the needs assessment survey wrote in a problem which was not listed in the questionnaire. Those who did most frequently mentioned 'lack of understanding' of what career education is--lack of understanding by staff, students, the community. Perhaps the lack of understanding contributes to other problems mentioned by several teachers--resistance of the community to new ideas, and reluctance of staff to actually change what they are doing. Lack of student interest in careers, or in planning for the future, was a problem mentioned by nine teachers. Six teachers said getting elected officials, both at the State and at the local levels, to fund programs once they had been introduced posed a critical problem for the implementation of programs such as career education. Lack of counselors and additional supervisors, lack of time for staff development, and inadequate compensation for teachers who take on extra responsibilities, were problems mentioned by one or two teachers.

Teachers were asked to assign a priority to each of a number of actions which might be undertaken by the State Department of Education in order to meet the career education needs of their school systems. The teachers who responded to these items gave each listed action a 'high', 'medium', 'low', or 'should not be done' priority, then a mean rating was calculated for the teacher sample. In Table 3.4 the actions are listed in order based on mean rating, and the percentages of 'high' and 'medium' priority ratings are given for each.

Table 3.4 Priorities for Career Education: Teachers' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Rating

Career Education Action	Rank Order Based on Mean Priority Rating	Total % of 'High' and 'Medium' Responses	(Percentage of 'High' Responses)
Facilitate dissemination of information about existing career education materials	1	94	(52)
Provide funds for purchase of career education materials by school system	2	86	(60)
Support development and validation of career education curriculum materials	3	94	(52)
Support in-service staff development activities	4	88	(52)
Support research to improve career guidance procedures	5	83	(46)
Support innovations in pre-service training	6	86	(42)
Provide incentives for participation by the private sector	7	85	(44)
Support research to predict future job markets	8	79	(41)
Support a computerized career information network	9	63	(24)

Career education materials were uppermost in the minds of teachers as they thought about career education needs. The actions ranked first, second, and third by the teacher sample indicate that teachers would like the State Department of Education to disseminate information about existing career education materials, provide funds for purchasing these materials, then support development of additional materials at the local (or State) level. The prioity actions ranked fourth and

sixth by the teachers were related to the training of staff to utilize career education concepts. Research designed to improve career guidance procedures was ranked fifth by the teacher sample. Lower priority was given by teachers to providing incentives for participation by the private sector, supporting research to predict future job markets, and providing a computerized career information network. Seven percent of the teacher sample gave the rating 'should not be done' to the computerized career information network; the average 'should not be done' rating for the other eight actions was two percent.

Less than six percent of the teachers responding named additional career education priorities which were not listed in the questionnaire. Those who did were chiefly concerned about staff training. They wanted leadership at the State level to undertake dissemination of information and staff training, but they wanted experienced classroom teachers to be involved in the training--persons who understood the pressures teachers feel to incorporate many new ideas in their teaching. They requested some sort of compensation (released time or extra pay) for participation in training, and follow-up assistance as they attempted to utilize career education concepts. Other needs mentioned by two or more teachers included placement for students who complete training, more emphasis on programming for grades 4-8, and additional counselors.

Views of Elementary and Secondary Teachers

Views of teachers in schools having a fourth grade (representing elementary teachers) differed very little from those of teachers in schools having ninth or twelfth grades (representing secondary teachers). In response to the question "Has your school or school system attempted to implement a career education program?" 66 percent of the secondary teachers said 'yes', but just 58 percent of

the elementary teachers said 'yes'. This difference may explain the fact that slightly more (2-3%) elementary teachers saw 10 of the 13 problems listed in Table 3.3 as contributing 'somewhat' or 'greatly' to the difficulty of implementing career education. Stated another way, 2 to 3 percent more secondary teachers considered 10 of 13 problems of 'no difficulty'. Elementary teachers were more concerned about 'lack of trained staff' and 'lack of funds to train staff' than were secondary teachers.

Elementary and secondary teachers' rankings of career education priorities (Table 3.4) were nearly identical ($r_s = .95$, $p \leq .01$). However, on six of nine items elementary teachers expressed stronger feelings. That is, the percentages of 'high' and 'medium' priority ratings given the six items by elementary teachers were one to three points higher than the ratings given by secondary teachers.

Community Leaders' Views

Sampling Procedure

In order to obtain a sample of the general public for the Tennessee Career Education Needs Assessment, the Career Education Specialist located in each of the nine district offices of the State Department of Education was asked to identify fifteen "significant community leaders" from the various communities within his/her development district. The needs assessment planners made the assumption at the outset that "community leaders" thus identified would be opinion leaders in their communities, and thus would provide a representative sampling of public opinion about career education throughout the State.

Most of the Career Education Specialists provided lists of fifteen community leaders, but one provided ten names and another provided twenty. Altogether the names of 132 community leaders were obtained, and questionnaires were mailed to these individuals in mid-February 1977. By March 20 sixty-four (48 percent) of the leaders had returned questionnaires. Responses were received from all nine development districts, and there were at least two indications that the respondents constituted a representative sample of the individuals who were identified by the Career Education Specialists. First, there was a high degree of unanimity among the respondents with respect to their perceptions of career education as indicated by their questionnaire responses. And second, the respondents represented the same major occupational areas, in approximately the same proportions, as did the sample of 132 identified leaders. Of the 64 respondents, 12 were employed in business and sales and 8 in industry; 9 were government officials such as mayor, trustee, councilman, or postmaster, and two were judges; five

were physicians, four were lawyers, and six were in other professions such as pharmacy, architecture and engineering; six were housewives; four were farmers; three were employed in banking; three were skilled workers, and two were ministers.

Career Education Concepts

The percentages of favorable responses recorded in Table 4.1 indicate that on seven of eight items 84 to 95 percent of the sample of community leaders in Tennessee viewed career education, as conceptualized by the "experts", positively. Item 4 contains the idea that by Grade 10 students should choose between entering a specific occupation and obtaining post-secondary education. Sufficient written comment was received to indicate that most of the community leaders approved the other career education stages characterized in Item 4, but did not agree that tenth graders were ready to make the career decision indicated. Thus only 49 percent of the leaders expressed agreement on Item 4. On all other items in the section, at least 84 percent of the community leaders responding shared the opinions of leading career education proponents.

A 'favorable' response in Table 4.1 may consist of 'strongly agree' and 'agree' responses, or of 'disagree' and 'strongly disagree' responses, depending on the way leading career education proponents view the concept.

Table 4.1 Community Leaders' Favorable Views of Key Career Education Concepts

Concept	Percentage of Favorable (Strongly Agree - Agree or Disagree - Strongly Disagree) Responses	Mean Response (Strongly Agree = 1 Strongly Disagree = 4)
1. Career Education sounds more like a job for counselors than for teachers.	88	3.20 (Disagree)
2. Work methods, materials and concepts can be utilized to relate the content of almost any school subject to the work world.	94	1.84 (Agree)
3. Awareness of careers and the world of work should begin in elementary school.	89	1.69 (Agree)
4. The student should become familiar with broad occupational clusters in Grades K-6, narrow his/her focus to two or three clusters for exploration in Grades 7-10, and choose between entering a specific occupation and obtaining post-secondary education by Grade 10.	49	2.56 (Disagree)
5. Career Education is a synonym for vocational education.	84	2.97 (Disagree)
6. Career Education is for <u>all</u> students: college-bound and non-college bound.	89	1.81 (Agree)
7. Career Education may be viewed as a basis for organizing and presenting educational content.	95	1.95 (Agree)
8. Career Education is just one more specialized area which will interfere with the general education which ought to be taking place in schools today.	92	3.27 (Disagree)

Based on the mean response computed for each item, the community leaders responding to items in this section held strongest views about items 3, 8, 1, 6 and 2, in that order. Taken together, these responses indicate that the community leaders

believed that (1) career awareness should begin in elementary school, (2) career education is not just another specialty that will interfere with general education, (3) nor is it a job primarily for counselors, (4) career education is for all students, and (5) career education concepts can be utilized to relate the content of almost any school subject to the way it can be used in the work world.

Career Education Objectives for Students: Community Leaders' Views

Community leaders were asked how much emphasis ('little', 'some', or 'much') they felt each of six broad career education objectives should be given in the school curriculum. Then they were asked to indicate to what extent ('not at all', 'to some extent', or 'completely') each objective was already being achieved in their local school system. The response percentages reported in Table 4.2 indicate that the community leaders were almost unanimous in their opinions that the six career education objectives for students should be given at least 'some' emphasis in the curriculum. On the other hand, no more than 7 percent (the average was 2.5 percent) of the respondents believed any objective was being achieved 'completely'. Most of the responses related to extent of achievement were in the 'to some extent' category.

The last column of Table 4.2 contains a series of ratios which indicates the discrepancy between the amount of emphasis community leaders thought the career education objectives deserved, and the extent to which they believed these objectives were actually being achieved. The ratio of the mean rating for 'extent of achievement' to the mean rating for 'emphasis' of any given career education objective should equal 1 if the objective were being achieved to a degree commensurate with the emphasis community leaders thought it should have. But as the table shows, the ratios are less than 1. This is an indication that the community leaders believed the objectives deserved more emphasis than they were receiving in the curricula of their school systems.

Table 4.2 Career Education Objectives: Community Leaders' Views of Desirable Emphasis and Extent of Achievement

Objective for Students	Desirable Emphasis		Extent of Achievement of Objective		Ratio of Mean Extent of Achievement Rating to Mean Desirable Emphasis Rating
	Total % of 'Some' & 'Much' Responses	(% of 'Much' Responses)	Total % of 'Not at All' and 'To some Extent' Responses	(% of 'To some Extent' Responses)	
1. To know oneself (interests, abilities, etc.)	100	(67)	98	(76)	1.80/2.67 = .67
2. To develop positive attitudes toward work	100	(94)	100	(77)	1.77/2.94 = .60
3. To acquire occupational information	99	(80)	93	(80)	1.93/2.78 = .69
4. To develop career decision-making skills	95	(61)	98	(82)	1.88/2.56 = .73
5. To develop plans for achieving career goals	100	(79)	95	(82)	1.91/2.79 = .68
6. To develop career problem-solving skills	94	(59)	100	(78)	1.78/2.53 = .70

All the stated career education objectives were given a strong endorsement by the sample of community leaders. However, mean emphasis ratings indicate that the leaders were most interested in having the schools assist students to (1) develop positive attitudes toward work, (2) develop plans for achieving career goals, and (3) acquire occupational information.

Figures in Table 4.2 reveal that the sample of Tennessee community leaders was not satisfied with the extent to which the career education objectives they strongly endorsed were being implemented: (1) 93-100 percent said 'not at all' or 'to some extent' when asked to what extent the objectives were being achieved, and (2) the

'discrepancy ratios' in the last column indicate that, on the average, only 68 percent of the emphasis the leaders felt the career education objectives should have was actually being achieved.

Career Education Needs: Community Leaders' Views

Responses to six statements about the implementation of career education programs in the schools indicate that a substantial majority of the sample of community leaders strongly favored putting the concept into practice.

- No community leader said career education "is not important enough for our schools to consider."
- No community leader said career education "should not be promoted because it interferes with the basic objectives of the curriculum in our schools".
- Sixteen percent of the community leaders said career education "should be used, or taught, only by those teachers who are really "sold" on it and can work it in without any extra cost to the school system".
- Twelve percent said career education "should be handled primarily by school counselors."
- Just 3 percent said career education "should be utilized in our schools only if federal funds can be obtained to pay for any extra expenses which may result."
- But 70 percent said career education "is an idea whose time has come; it should be utilized in our schools even if it means raising taxes to pay for it."

In short, the community leaders responding to the needs assessment survey gave a strong endorsement to career education, and not just to be handled by counselors and interested teachers, but (based on previous responses) as an integral part of the total curriculum.

When asked, "Has your local school system attemped to implement a career education program?" half of the community leaders said they didn't know, 30 percent said 'yes' and 20 percent said 'no'.

Then the leaders were given a list of potential problems and asked how much ('greatly', 'somewhat', or 'no difficulty') they felt each would contribute to the overall difficulty of implementing career education programs in their local school systems. In Table 4.3 these problems are listed in rank order based on mean difficulty rating, with percentages of 'greatly' and 'somewhat' responses included for each item.

Table 4.3 Problems Contributing to Difficulty of Implementing Career Education: Community Leaders' 'Somewhat' and 'Greatly' Responses and Rank Order Based on Mean Difficulty Ratings

Problem	Rank Order Based on Mean Difficulty Rating	Total % of 'Somewhat' and 'Greatly' Responses	(% of 'Greatly' Responses)
Lack of trained staff	1	94	(53)
Lack of funds to train staff	2	85	(55)
Lack of funds to purchase materials	3	88	(49)
Lack of funds for making curricular changes	4	85	(48)
Lack of competent person(s) to train staff	5	77	(47)
Lack of funds for transportation of students to work sites	6	81	(41)
Lack of curriculum materials that meet staff development needs	7	88	(32)
Lack of curriculum materials that meet identified needs	8	87	(30)
Confusion between career education and vocational education	9	82	(24)
Resistance of staff to career education	10	84	(16)
Lack of interest at the State Dept. of Education	11	62	(19)
Lack of interest in the business/labor/industry community	12	47	(12)
Opposition from parents	13	37	(02)

Evidence presented in Table 4.3 indicates that the community leaders considered lack of funds to be the most serious obstacle to implementation of career education in their local schools: the problems ranked 1, 2, 3 and 4 included the phrase 'lack of funds'. Next to lack of funds, the community leaders considered lack of resources for staff training and lack of curriculum materials to be the most significant problems: the problems ranked 1, 2, 3, 4, 5, 7 and 8 deal with these issues. Confusion between career education and vocational education was considered at least 'somewhat' of a problem by 82 percent of the community leaders who responded to this section of the questionnaire. The sample of community leaders apparently saw much less cause for concern about the effect on career education programming of lack of interest in, or opposition to, career education by parents, the business/labor/industry community, the State Department of Education, and school staff.

Eight of the sixty-four community leaders who responded to the needs assessment survey added problems which were not listed on the questionnaire. Four of the additional problems were related to teachers' lack of expertise in career education. Two community leaders said lack of student interest was a problem. One identified 'counselors' as a problem, one named the 'U. S. Government'.

Community leaders were asked to assign a priority to each of a number of actions which might be undertaken by the State Department of Education in order to meet the career education needs of their local school systems. The community leaders who responded to these items gave each listed action a 'high', 'medium', 'low' or 'should not be done' priority, then a mean rating was calculated. In Table 4.4 the actions are listed in order based on mean priority rating, and the percentages of 'high' and 'medium' priority ratings are given for each.

Table 4.4 Priorities for Career Education: Community Leaders' 'High' and 'Medium' Priority Ratings and Rank Order Based on Mean Priority Rating

Career Education Action	Rank Order Based on Mean Priority Rating	Total % of 'High' and 'Medium' Responses	(Percentage of 'High' Responses)
Support development and validation of career education curriculum materials	1	87	(62)
Facilitate dissemination of information about existing career education materials	2	92	(57)
Support research to improve career guidance procedures	3	83	(58)
Provide funds for purchase of career education materials by the school system	4	83	(56)
Support in-service staff development activities	5	82	(55)
Support innovations in pre-service training	6	83	(52)
Provide incentives for participation by the private sector	7	79	(55)
Support research to predict future job markets	8	75	(43)
Support a computerized career information network	9	66	(34)

Community leaders placed highest priority (actions ranked 1, 2, and 4) on providing career education materials for the schools. Research to improve career guidance procedures was ranked third by the leaders. Staff training was the subject of the priorites ranked fifth and sixth. Lower priorites were assigned to providing incentives for private sector participation, job market research, and a

computerized career information network. Ten percent of the community leaders gave the rating 'should not be done' to the computerized career information network; the average 'should not be done' rating for the other eight actions was two percent.

Seven of the sixty-four responding community leaders wrote additional priorities which were not listed as alternatives in the questionnaire. Three of the additions were related to funding: one leader said "our system is out of money"; one said "provide funds for more staff in career education and counseling"; one said "support the minimum program", and accomplish it adequately before attempting any innovations. Two of the priorities identified were related to staff training: one leader said "better training for counselors" was needed; another indicated that expertise in career education should be added to teacher certification requirements. Two needs listed were related to increasing understanding of career education: one community leader said "sell career education to the students" and another said a program was needed to "explain career education to the general public".

Exactly half (32) of the community leader respondents took advantage of an opportunity afforded them at the end of the questionnaire to make 'Additional Comments Related to Career Education'. Only two of the comments were negative; the gist of both was that there are insufficient funds even for basic education in Tennessee, thus career education constitutes a "luxury we cannot afford". The positive remarks emphasized the need for starting career education in the early grades in order to add a source of motivation for students, and for integrating career education into the total curriculum rather than expecting

counselors or career education specialists to accomplish the job. Several individuals said they were sorry that Tennessee had not moved more quickly to implement career education in all schools. Other thoughts shared by two or more community leaders were that not all students should be encouraged to go to college but should be assisted to develop to the fullest whatever talents they might have, and that students should study career clusters and learn decision-making processes but not make specific career decisions too soon.

IV. CAREER MATURITY INVENTORY FOR NINTH GRADERS

The report containing the data analysis for Tennessee's State Educational Assessment of Schools (Tennessee State Testing and Evaluation Center, 1976) contains the following information about the administration of the Career Maturity Inventory to a sample of ninth grade students during the 1975-76 school year:

> The Career Maturity Inventory was administered to the ninth grade because of current interest in Career Education. The Inventory was designed to measure both competence and attitude in regard to career maturity. The main use of the Inventory is to compare various scores of schools with the State scores and with other information, and make judgments regarding program needs in connection with career maturity and development. In addition, scores over the years will be compared to measure, in part, the impact of career education. School norms for use within the State have been produced from the 1975-76 Assessment. These norms enable schools to compare their scores with other schools in Tennessee.
>
> Although there were no national norms as such for the Career Maturity Inventory, the publishers did provide results from limited studies in a number of states, and these results indicated that Freshmen in Tennessee schools scored higher than the comparison group in Planning (21% more answers correct), Problem Solving (8% more answers correct), and Occupational Information (1½% more answers correct). Freshmen in Tennessee schools scored lower in Attitude (4% fewer answers correct), Self Appraisal (3½% fewer answers correct), and Goal Selection (2% fewer answers correct)(p. 6).

The career development competencies of Tennessee's ninth grade students compared favorably with those of the norm group which was utilized. If it could be said, however, that the CMI data suggest any student needs which might be incorporated into career education planning, those needs would be in the areas of (1) attitudes related to career maturity--positive attitudes toward work and work

values and willingness to assume responsibility for making a career choice (Crites, 1973)--and (2) self-appraisal--acquiring an understanding of one's values, interests, abilities, and limitations in order to be able to relate these attributes to the requirements of various careers.

These particular CMI findings should be called to the attention of Tennessee's superintendents, principals and teachers because the segments of these groups which responded to the needs assessment survey felt the schools were doing a better job of achieving student objectives related to development of positive attitudes toward and to self-appraisal than was being accomplished in any of the other four areas of competence measured by the CMI. The school professionals should know that the students sampled knew least about the areas to which the professionals felt most attention had been given.

SUMMARY OF NEEDS ASSESSMENT SURVEY DATA

The principal source of information for the Tennessee Career Education Needs Assessment was a mail survey designed for all the State's superintendents, and samples of principals, teachers and community leaders. The combination of questions contained in the questionnaire for each of the four groups was unique, but certain questions were asked of all groups, and some questions were asked of two or more groups. All questionnaires were mailed in February and early March 1977.

Completed questionnaires were returned by 92 percent of the State's 147 superintendents, by 84 percent of the 243 principals sampled, by 87 percent of the 975 teachers sampled, and by 48 percent of the sample of 132 community leaders which was identified by specialists in each of the State Department of Education's nine district field offices.

Works of leading proponents of career education were studied to provide input for the development of eight statements embodying key career education concepts. The statements were adapted for use with a Likert scale response format and included in the questionnaires which were submitted to the samples of teachers and community leaders. This set of items was designed to determine how positively, or negatively, teachers and community leaders perceived career education as conceptualized by leaders in the field. An average of 90 percent (the range for individual items was 80 to 95 percent) of both groups agreed with the experts on seven of eight items. Taken together, these responses indicate that the teachers and community leaders believed strongly that career education is not just another specialty which will interfere with general

education, but rather it is a process which should begin in the earliest grades and continue to be integrated into the existing curriculum at all grade levels in order to relate the content of school subjects to the way the content can be used in the world of work. Both groups agreed that career education is for all students: college-bound and non-college-bound.

Student data for the career education needs assessment consisted of scores on the Career Maturity Inventory (CMI) obtained by a sample of ninth grade students who took the CMI during the course of the 1975-76 State Educational Assessment of Schools in Tennessee. The CMI is based on measures of attitudes related to career maturity and five career development competencies referred to as Self-Appraisal, Occupational Information, Goal Selection, Planning, and Problem Solving (Crites, 1973). For purposes of the needs assessment survey, a set of six student objectives related to the attitudes and competencies measured by the CMI was developed. All four adult groups--superintendents, principals, teachers and community leaders--were asked to indicate (1) how much emphasis each objective should be given in the curriculum of the local schools ('little', 'some', or 'much'), and (2) the extent to which each objective was being achieved in those schools ('not at all', 'to some extent, but not sufficiently', or 'completely').

The career education objectives for students were given a strong endorsement by all four groups of adults: an average of 96 percent of all respondents believed all of the objectives deserved 'some' or 'much' emphasis. (Table 5.1 presents the student objectives developed for the needs assessment with the corresponding CMI measures, and the total percentage of each adult group which

indicated that the objectives deserved 'some' or 'much' emphasis in the curriculum.) No group, however, was totally satisfied with the extent to which the career education objectives for students were being achieved. 'Discrepancy ratios' comparing the mean rating for 'extent of achievement' with the mean rating for 'emphasis' indicated that community leaders felt that the schools were achieving less than 70 percent of the emphasis they thought the career education objectives should have. The comparable figure for school personnel was 80 percent--superintendents, principals, and teachers thought they were doing a somewhat better job of achieving career education objectives than the community leaders thought they were doing.

Table 5.1 Percentages of Superintendents, Principals, Teachers and Community Leaders Indicating that Career Education Objectives for Students (Based on Career Maturity Inventory Measures) Deserve 'Some' or 'Much' Emphasis in the School Curriculum.

Student Objective & Corresponding CMI Measure	Total % of Supts.' 'Some' & 'Much' Responses	Total % of Prin.' 'Some' & 'Much' Responses	Total % of Teachers' 'Some' & 'Much' Responses	Total % of Comm. Leaders' 'Some' & 'Much' Responses
1. To know oneself (Self-Appraisal)	98	99	97	100
2. To develop positive attitudes toward work (Attitude)	100	99	96	100
3. To acquire occupational information (Occupational Information)	96	98	95	99
4. To develop career decision-making skills (Goal Selection)	94	95	93	95
5. To develop plans for achieving career goals (Planning)	95	97	95	100
6. To develop career problem-solving skills (Problem Solving)	89	92	95	94

In addition to providing a strong endorsement of career education objectives for students, majorities of all four adult groups also indicated support for the concept by choosing from a number of alternatives the most positive statement about career education, i.e., career education "is an idea whose time has come; it should be utilized in our schools even if it means raising taxes to pay for it." Of the superintendents who responded to the items in this section of the questionnaire, 62 percent indicated agreement with this statement; 71 percent of the principals, 60 percent of the teachers, and 70 percent of the community leaders also indicated agreement.

When asked if their school or school system had 'attempted to implement a career education program', 47 percent of the superintendents, 63 percent of the principals, and 55 percent of the teachers said 'yes'. The discrepancies between these figures can probably best be attributed to the lack of unanimity--which exists among the experts as well--about what exactly constitutes a 'career education program'. More principals may have said 'yes' because they were in a better position than superintendents or other teachers to know if and when one or more teachers was attempting a 'career education program' in his/her own classes. In a related item, only 20 percent of the principals said their school had 'a formal program for infusing career education into the total curriculum'. This response suggests that (1) while there may be individual efforts to implement career education taking place in up to 60 percent of Tennessee's schools, the percentage of schools attempting to infuse it into the entire curriculum in any coordinated approach is much smaller; and (2) some schools which have undertaken career education projects in the past, perhaps

with outside funding, have not necessarily continued these programs--subsequent items indicate that a chief reason for this may be lack of funds.

In response to the question about implementation of career education programs in their local school systems, only 30 percent of the community leaders responding believed such efforts had been made; 50 percent said they did not know.

All four of the of the groups asked to participate in the needs assessment survey were given a list of potential problems which might hamper career education efforts and directed to indicate how much ('greatly', 'somewhat', 'no difficulty') each had contributed to the overall difficulty of implementing career education programs in their own local schools. Table 5.2 presents the rank order based on mean difficulty rating in which each group of respondents placed the thirteen problems.

Table 5.2 Problems Contributing to Difficulty of Implementing Career Education: Rank Order Based on Mean Difficulty Rating for Superintendents, Principals, Teachers and Community Leaders.

Problem	Order of Difficulty - Superintendents	Order of Difficulty- Principals	Order of Difficulty - Teachers	Order of Difficulty - Community Leaders
Lack of funds to train staff	1	2	2	2
Lack of funds to purchase materials	2	1	1	3
Lack of funds for transportation of students to work sites	3	3	4	6
Lack of curriculum materials that meet identified needs	4	6	5	8
Lack of funds for making curricular changes	5	4	3	4
Lack of curriculum materials that meet staff development needs	6	5	6	7
Lack of trained staff	7	8	7	1
Lack of competent person(s) to train staff	8	7	9	5
Confusion between career education and vocational education	9	9	8	9
Lack of interest at the State Dept. of Education	10	11	12	11
Resistance of staff to career education	11	12	10	10
Lack of interest in the business/ labor/industry community	12	10	11	12
Opposition from parents	13	13	13	13

Spearman rank order coefficients of correlation calculated for each pair of rankings in Table 5.2 indicate that there was a significant degree of association between all pairs. The coefficients of correlation between rankings of superintendents and principals, superintendents and teachers, principals and teachers, were each .96, a very high degree of association, and significant at the .01 level. Community leaders' rankings were somewhat less highly correlated with those of the school personnel, but the coefficients of correlation of .80 between rankings of community leaders and those of teachers, .79 between community leaders and superintendents, and .78 between community leaders and principals were nevertheless significant at the .01 level.

As the data presented in Table 5.2 indicate, 'lack of funds' was seen as the most critical obstacle for career education programming by all groups surveyed. Lack of curriculum materials and resources for staff training were the other principal problems identified by all groups. Lack of interest in, or resistance to, career education on the part of parents, community, or school staff, was not considered to pose a serious threat to program implementation. Less than ten percent of all respondents availed themselves of an opportunity to write in problems which were not listed on the questionnaires. Those who did most frequently mentioned lack of counselors and career education supervisors or coordinators to provide leadership for school programs, and lack of student interest in career education.

Another item included on all four needs assessment survey instruments directed respondents to assign a priority to each of a number of actions which might be undertaken by the State Department of Education in order to meet the

career education needs of their school systems. Those who responded gave each listed action a 'high', 'medium', 'low' or 'should not be done' priority, then a mean rating was calculated for each action. Table 5.3 presents the rank order based on mean priority rating in which each group of respondents placed the nine actions listed.

Table 5.3 Priorities for Career Education: Rank Order Based on Mean Priority Rating for Superintendents, Principals, Teachers and Community Leaders

Career Education Action	Order of Priority - Superintendents	Order of Priority - Principals	Order of Priority - Teachers	Order of Priority - Community Leaders
Support in-service staff development activities	1	2	4	5
Provide funds for purchase of career education materials by school system	2	1	2	4
Support innovations in pre-service training	3	5	6	6
Facilitate dissemination of information about existing career education material	4	3	1	2
Support development and validation of career education curriculum materials	5	4	3	1
Support research to improve career guidance procedures	6	7	5	3
Support research to predict future job markets	7	6	8	8
Provide incentives for participation by the private sector	8	8	7	7
Support a computerized career information network	9	9	9	9

Spearman rank order coefficients of correlation calculated for each pair of rankings in Table 5.3 indicate that there was a significant degree of agreement among school personnel about the relative importance of the actions listed, but of the school-connected groups only teachers' rankings were significantly correlated with those of community leaders. The coefficient of correlation between rankings of superintendents and principals was .92, teachers and community leaders: .88, teachers and principals: .83, all significant at the .01 level. The coefficient of correlation between rankings of teachers and superintendents was .72, significant at the .05 level. Correlations between rankings of superintendents and community leaders (r_s = .50) and principals and community leaders (r_s = .58) were not significant.

Provision of curriculum materials and staff training in career education were the two leading priorities for all respondents. Research concerning future job markets, incentives for private sector participation, and computerized career information were considered much lower priorities. The chief differences between the priorities of teachers and community leaders and those of superintendents and principals were that the former groups attached more importance to dissemination of information about existing materials and to development and validation of curriculum materials than did the latter, and less importance to the need for in-service staff development.

Less than ten percent of the survey respondents wrote in career education priorities other than those listed in the questionnaire. Those who did were most interested in seeing more leadership and funding provided for career education at the State level. Several suggested that career education be made part of the Minimum Foundation Program. Superintendents, principals, and community leaders stressed the need for additional counselors and career education supervisors or coordinators. Principals and teachers wanted leadership

from the State Department of Education, but wanted the freedom to design their own programs. Teachers wanted to be sure that any staff development activities which might be planned would include input from experienced classroom teachers. Teachers also wanted compensation for time spent in training and plenty of follow-up assistance with their implementation plans for career education. The need for placement of students in jobs upon completion of training was mentioned by several respondents. Others suggested that efforts be made to increase the understanding of career education on the part of all concerned--school staff, students, parents, the community.

More efforts to implement career education were found to have been made in city school systems as opposed to county systems, and in secondary schools as compared to elementary schools. Quite possibly the differential in degree of implementation caused county superintendents and elementary principals to view obstacles to implementation and career education priorities (as listed in Tables 5.2 and 5.3) more strongly than did city system superintendents and secondary principals, respectively.

Certain questions related to career education policies and procedures were asked only of superintendents or of principals.

Five percent of the superintendents responding to the survey said their boards of education had adopted formal written policies for career education. Twenty percent indicated that funds had been budgeted for career education in their systems during the last two school years. Federal grants were the most frequently mentioned source of funds for career education. Approximately 12 percent of the systems reported that they had utilized federal funds in the past two years. Only four percent had obtained State funds. Excluding the largest city systems, the average local allocation for career education was $6000

annually. Median federal and State grants were $10,000 per year.

Twenty percent of the school systems reporting have conducted formal needs assessments as part of career education planning activities. In 17 percent of the systems one or more individuals has been employed specifically for work in career education during the past year. Most of these persons were trained as guidance counselors or school administrators, a few had formerly been vocational education or non-vocational teachers.

Twenty-three percent of the superintendents responding said that formal evaluations of career education activities had been carried out in their systems. Fifteen percent of the systems had formally constituted advisory committees for career education. Staff development and training activities had been conducted in 18 percent of the school systems in 1976-77. In only half of these systems were staff participants compensated for engaging in such activities. Most frequently participants were given released time if compensated at all.

Principals were given a list of twenty instructional techniques or activities and asked which best described their school's current career education delivery system. Approximately 70 percent were using field trips or general guidance and counseling; 44 percent were using career guidance activites or guest speakers from business/labor/industry; 36 percent used comprehensive vocational/technical training or group career counseling; less than 30 percent used career information centers, career education units, or some sort of work experience; about 15 percent conducted career fairs or student placement services.

Twenty percent of the principals said their schools had formal programs 'for infusing career education into the total curriculum'. When asked "What percentage of your staff members are actually implementing this process in the

classroom?" only ten principals responded. The percentages given ranged from 15 to 100, averaging 45.

Thirty-two percent of the 205 principals responding reported that they had conducted staff development activities in career education during 1976-77. Most often these activities took place before or after school hours or on "institute" or "teacher work" days. When asked "What techniques and materials were used in these activities?" approximately 15 percent of the principals said they had utilized visits to business/labor/industry or other community sites, attendance at professional meetings, or group sharing sessions among school staff; 10 percent used presentations by local school staff experts, published or locally developed staff development materials, or presentations by outside experts; 5 to 7 percent used visits to exemplary career education programs, workshops or summer course work, and work experience in fields outside education.

CONCLUSIONS AND RECOMMENDATIONS

Perhaps the most significant conclusion that can be derived from data collected in the course of the career education needs assessment survey is that career education is not a concept that will require a great deal of "selling" to educators, parents, or the general public in Tennessee. Sixty to seventy percent of superintendents, principals, teachers and community leaders responding to the survey indicated that they believe career education is an idea whose time has come, one that should be utilized in the schools even if taxes must be raised to pay for it. Of course in any given community specific plans for implementing career education should be widely publicized and explained to enhance understanding of the program by all who will be affected by it, including students, parents, and members of the community. But career education utilized (1) as a motivational device to increase the relevance of academic content for students, and (2) to prepare youth for a smoother transition from school to work, is a concept with broad appeal. If career education could be used to motivate more students to stay in school and to obtain employability skills, it could also become a concept of great economic value to Tennessee because at present the State Department of Employment Security identifies lack of education and job training as the chief barriers to employment of Tennesseans.

The "Goals of Education" contained in the publication Rules, Regulations, and Minimum Standards by Tennessee's State Board of Education contain a number of goals which are quite compatible with the goals of career education. School personnel and community leaders responding to the needs assessment survey provided a strong indication that they also considered career education goals

to be compatible with their ideas about what ought to be happening in the State's schools. When superintendents, principals, teachers and community leaders were presented with a set of career education goals and objectives for students and asked how much emphasis each should be given in the curriculum of the local schools, an average of 96 percent of all respondents said that all the objectives deserved 'some' or 'much' emphasis. No group was totally satisfied with the extent to which the student objectives were being achieved in the schools, however. Community leaders were least satisfied with the extent of achievement, but even among school staff 20 percent or more felt the career education objectives should be given more emphasis than the schools were achieving. Responses of superintendents, principals and teachers indicated that at most 60 percent of Tennessee's schools have attempted to implement career education in some way; and according to principals responding to the survey, only 20 percent currently have formal programs for infusing career education into the total curriculum.

Since 1974 a number of career education projects have been undertaken in Tennessee with outside funding, but many of these were discontinued when the initial grant ran out.

Survey respondents indicated that the chief obstacle to implementation of career education programs was lack of funds. Lack of curriculum materials and resources for staff training were other critical problems. When asked what actions the State Department of Education could undertake to expedite career education implementation, all groups of respondents gave top priority to the provision of curriculum materials and staff training in career education.

All of the foregoing survey findings strongly indicate that the public is ready and willing to support career education in Tennessee, and school personnel are quite interested in implementing it. Questionnaire responses and additional comments supplied by respondents point to the need for strong leadership at the State level, and a source of funding for (1) dissemination of information about existing career education materials and purchase by school systems of some of these materials, and (2) personnel to spend time in the field organizing staff training in the use of career education materials and techniques. Manpower planning information obtained from the State Department of Employment Security suggests that the State Department of Education should concentrate some of its efforts on selecting and preparing materials related to those occupations in which most Tennesseans will be employed in the 1980's, specifically, manufacturing (especially apparel and textile products, and chemicals and allied products), services (personal services such as laundry and cleaning, hotels and lodging places, automobile repair, motion pictures and entertainment, medical services, legal services, educational services, and miscellaneous business services), clerical work, and retail and wholesale trade. In staff development programs school staff should be instructed in methods of involving workers from these occupations (and prevalent local occupations) in their school career education programs.

Scores on the Career Maturity Inventory, which was administered to a sample of ninth grade students during the 1975-76 State Educational Assessment of Schools, suggest that the career education competencies with which Tennessee's students need most assistance are those of (1) developing positive attitudes toward work

and work values and assuming responsibility for making a career choice, and (2) self-appraisal, or acquiring an understanding of one's values, interests, abilities and limitations.

The need to infuse career education into the total curriculum and to involve all staff in the effort should be emphasized. Commentary added to the survey instruments by teachers suggested that experienced classroom teachers who have successfully utilized career education concepts in their classes should play key roles in staff training programs. Teachers expressed a desire for released time or other forms of compensation for their participation in the staff development activities. Many school systems need additional counselors and career education supervisors or coordinators to help provide the follow-up assistance teachers must have as they attempt to carry out their own plans for utilizing career education.

Attention should be given to establishing more placement services for students who desire part-time work experience or who seek full-time employment upon completion of training/education. Career education activities should be widely publicized within the school and in the community so that students, parents, and potential contributors to the program from the community will know what is happening and what opportunities are available.

While the total percentage of Tennessee schools currently making systematic efforts to infuse career education into the total curriculum is small, city school systems and secondary schools apparently have a slight edge on county systems and elementary schools, respectively, in their efforts to implement career education. This suggests that special emphasis should be given for a time to developing programs in county systems and elementary schools.

1. American Institutes for Research. Survey of Career Education in the Public Schools of the United States - 1975. Palo Alto, California: 1976.

2. American Vocational Association. Third Yearbook. Career Education. Joel Magisos, ed. Washington: AVA, 1973.

3. Colorado. Department of Education. "Pilot Career Education Survey." (mimeo) Denver: 1976.

4. Crites, J. O. Career Maturity Inventory Administration and Use Manual. Monterey, California: CTB/McGraw-Hill, 1973.

5. Delaware. Occupational-Vocational Education Project. Career Development Data Gathering Instrumentation. Milford: 1973.

6. Development Associates, Inc. Summary of Results-Career Education Instrument Review Conducted for U.S. Office of Education. Washington: 1975.

7. Goldhammer, K. and R. Taylor. Career Education, Perspective and Promise. Columbus, Ohio: Charles Merrill, 1972.

8. Hooker, J. N. Career Education Evaluation. Knoxville: State Testing and Evaluation Center, 1976.

9. Hoyt, K. An Introduction to Career Education. Policy paper of the U.S. Office of Education, Washington, 1975.

10. Hoyt, K.B., R.N. Evans, E.F. Mackin, G.L. Mangum. Career Education: What it is and how to do it. Salt Lake City: Olympus, 1972.

11. Ingram, S.H. "Career Education - an Evolving Concept." Address delivered in September, 1976.

12. Michigan. Department of Education. The Nature, Status, and Scope of Career Education Programs. Lansing: 1976.

13. National Education Association (NEA). Research Bulletin, 38:4, December, 1960, p. 99.

14. New Mexico. Department of Education. "A Proposal for the Development of a State Plan for Career Education in New Mexico." Proposal submitted to the U.S. Office of Education, Office of Career Education, February 10, 1976.

15. Tennessee. Department of Employment Security. Tennessee Data for Affirmative Action Plans - Annual Average 1975. Nashville: 1976.

16. Tennessee. Department of Employment Security. Annual Planning Report for the State of Tennessee, Planning Year, 1977. Nashville: 1976.

17. Tennessee. State Department of Education. Career Education Planning in Tennessee. A proposal submitted to the U.S. Office of Education, Office of Career Education, February 17, 1976.

18. Tennessee. State Department of Education. 1976-77 Directory of Public Schools. Nashville: 1976.

19. Tennessee. State Department of Education. "A Proposal for Communicating Career Education to Practitioners and the General Public". Proposal submitted to the U.S. Office of Education, Office of Career Education, April 16, 1975.

20. Tennessee. State Testing and Evaluation Center. State Educational Assessment Of Schools. Knoxville: 1976.

21. Texas. Education Agency. Career Education - An Initial Look - A Needs Assessment Report. Austin: 1973.